

JCO7 Rec'd PCT/

23 AUG 2005

Attorney Docket No. 26709

PCT

#2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Group Art Unit: Unknown

RADEMANN, Jörg

Examiner: Unknown

International Application No. PCT/EP03/03699

Serial No. 10/532,214

International Filing Date: 09 April 2003 (09.04.2003)

Filed: April 22, 2005

Title: **SWELLABLE, EASILY CROSS-LINKED, ESSENTIALLY LINEAR POLYMERS, AND THE USE OF THE SAME IN SOLID PHASE SYNTHESIS**

TRANSMITTAL LETTER

Commissioner of Patents  
P.O. Box 1450  
Alexandria, Va 22313-1450

Sir:

Submitted herewith for filing in the U.S. Patent and Trademark Office is the following:

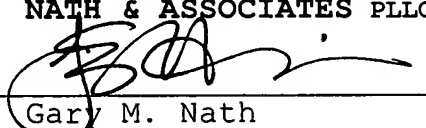
- (1) Transmittal Letter;
- (2) Information Disclosure Statement;
- (3) PTO Form 1449 citing 34 references;
- (4) PCT/ISA/210 International Search Report.

The Commissioner is hereby authorized to charge any deficiency or credit any excess to Deposit Account No. 14-0112.

Respectfully submitted,

**NATH & ASSOCIATES PLLC**

By:

  
Gary M. Nath  
Registration No. 26,965  
Tanya E. Harkins  
Registration No. 52,993  
Customer No. 20529

Date: August 23, 2005  
NATH & ASSOCIATES PLLC  
1030 15<sup>th</sup> Street NW - 6<sup>th</sup> Floor  
Washington, D.C. 20005  
GMN/TEH/lr:IDS/Trans



MAIL STOP PCT  
Atty. Docket No. 26709

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of:

Group Art Unit: Unknown

RADEMANN, Jörg

Examiner: Unknown

International Application No. PCT/EP03/03699

Serial No. 10/532,214

International Filing Date: 09 April 2003 (09.04.2003)

Filed: April 22, 2005

Title: **SWELLABLE, EASILY CROSS-LINKED, ESSENTIALLY LINEAR POLYMERS, AND  
THE USE OF THE SAME IN SOLID PHASE SYNTHESIS**

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

An Information Disclosure Statement is submitted herewith pursuant to 37 C.F.R. §1.98. Please note the following particulars:

[NOTE: One only of items a, b, c, and d must be checked.]

- [ X ] a. The enclosed statement is being filed within three months of the filing date of a national application, or within three months of the date of entry into the national stage as set forth in 37 C.F.R. §1.491 in an international application, or before the mailing date of a first Office Action on the merits, whichever event occurs last.
- [ ] b. The enclosed statement is being filed after a first action on the merits but before the mailing date of a final action under 37 C.F.R. § 1.113, or a notice of allowance under 37 C.F.R. § 1.311.

The enclosed statement is accompanied by [check one]:

- [ ] i. a certification in part (e) below as specified in 37 C.F.R. § 1.97(e), or
- [ ] ii. a check in the amount required by 37 C.F.R. § 1.17(p).
- [ ] c. The enclosed statement is being filed after the mailing date of a final action under 37 C.F.R. § 1.113, or a notice of allowance under 37 C.F.R. § 1.311, but before payment of the issue fee.
- [ ] Certification report(e) below; and
- [ ] a check in the amount as required by § 1.17(p).
- [ ] d. The enclosed statement is being filed pursuant to 37 C.F.R. § 1.97(i), for placement in the file.
- [ ] e. Certification [Check one] [Certification is required only if box (b)(i) or box (c) is checked.]

[ ] I hereby certify that each item of information contained in the enclosed Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement,

or

[ ] I hereby certify that no item of information in the enclosed Information Disclosure Statement herewith was cited in a communication from a foreign patent office in a counterpart foreign application, or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

or

[ ] Appropriate certification is attached.

[ X ] f. If no check is enclosed and a fee is due in connection with this communication or if the check enclosed is insufficient, the Commissioner is authorized to charge any fee or additional fee due in connection with this communication to Deposit Account No. 14-0112.

[ X ] g. Copies of the documents are attached herewith with a completed Form PTO-1449.

And/or

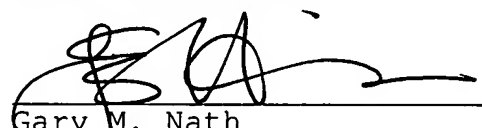
[ X ] Copies of the documents are not attached as allowed under CFR 1.98(d)(1)(2). The earlier application is identified as: or Copies of US Patents/Publications not attached as allowed in Official Gazette Aug. 5, 2003/ Vol. 1273, no. 1.

The Examiner is respectfully requested to cite the documents listed on the attached Form PTO-1449 in the next Office Action. In so doing, the Examiner is respectfully requested to initial in the space adjacent to the listing of each document on the Form PTO-1449, and return a copy of the initialed Form PTO-1449 with the next communication to Applicants, to confirm that these documents have been considered by the Examiner and made of record in this application.

If the Examiner has any questions or wishes to discuss this application, kindly telephone the undersigned at the below-listed number.


Respectfully submitted,  
**NATH & ASSOCIATES**

By:

  
Gary M. Nath  
Registration No. 26,965  
Tanya E. Harkins  
Registration No. 52,993  
Customer No. 20529

Date: August 23, 2005

NATH & ASSOCIATES PLLC  
1030 15<sup>th</sup> Street, N.W., 6<sup>th</sup> Floor  
Washington, D.C. 20005  
Tel. (202) 775-8383  
Fax. (202) 775-8396  
GMN/TEH/lis (IDS.revisedNov03)

	FORM PTO-1449	
	Atty Docket 26709	Serial No. 10/532,214
	Applicant RADEMANN	
Filing Date April 22, 2005		Group Art Unit Unknown

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Issue Date	Name	Class	Sub-Class	Filing Date
AA	4,614,762	Sep. 30, 1986	Marans et al.			June 15, 1984
AB	3,471,359	Oct. 7, 1969	Goldstein			Aug. 2, 1965
AC	6,083,898	July 4, 2000	Meixner et al.			May 12, 1999
AD	3,951,815	Apr. 20, 1976	Wrasidlo			Sep. 5, 1974

## FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	Sub-Class	Translation
WO 00/55258	Sep. 21, 2000	WIPO			N/A

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AF	Merrifield, R.B., "Solid Phase Peptide Synthesis. I. The Synthesis of a Tetrapeptide." J. Am. Chem Soc., vol. 85, pp. 2149-2154, 1963.
AG	Hudson, Derek, "Matrix Assisted Synthetic Transformation: A Mosaic of Diverse Contributions. I. The Pattern Emerges." J. Comb. Chem., vol. 1, pp. 333-360, 1999.
AH	Hudson, Derek, "Matrix Assisted Synthetic Transformation: A Mosaic of Diverse Contributions. II. The Pattern is Completed." J. Comb. Chem., vol. 1, pp. 403-457, 1999.
AI	Kokufuta, Etsuo, et al., "Volume collapse of a cationic poly(ethyleneimine) gel induced by the binding of anionic surfactants." Colloids and Surfaces A: Physicochem. Eng. Aspects, vol. 147, pp. 179-187, 1999.
AJ	Shepherd, E.J., et al., "Studies of a Cross-linked poly(ethyleneimine) Ion-exchange Resin." J. Chem. Soc., pp. 86-92, 1957.
AK	Manecke, Georg, et al., "Reaktive Träger auf der Basis von Polyethylenimin zur Immobilisierung von Enzymen." Makromol. Chem., vol. 182, pp. 2641-2657, 1981. (English summary.)

Examiner

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609.

Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to Applicant.

FORM PTO-1449

## INFORMATION DISCLOSURE CITATION

Atty Docket  
26709Serial No.  
10/532,214Applicant  
RADEMANNFiling Date  
April 22, 2005Group Art Unit  
Unknown

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub-Class	Translation
	CA						
	CB						

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	CC	Lindsley, Craig W., et al., "Rasta Silanes: New Silyl Resins with Novel Macromolecular Architecture via Living Free Radical Polymerization." J. Comb. Chem., vol. 2, pp. 550-559, 2000.
	CD	Rademann, Jörg, et al., "Spatially Resolved Single Bead Analysis: Homogeneity, Diffusion, and Adsorption in Cross-Linked Polystyrene." Chem. Eur. J., vol. 7, pp. 3884-3889, 2001.
	CE	Grosche, Philipp, et al., "Pyrazole, Pyridine and Pyridone Synthesis on Solid Support." Synthesis, pp. 1961-1970, 1999.
	CF	Jung, Günther, ed., "Combinatorial Chemistry - Synthesis, Analysis, Screening." Wiley-VCH, Weinheim, 1999. (Contents pages enclosed).
	CG	Jung, Günther, ed., "Combinatorial Peptide and Nonpeptide libraries." Wiley-VCH, Weinheim, 1996. (Contents pages enclosed).
	CH	Ley, Steven V., et al., "Multi-step organic synthesis using solid-supported reagents and scavengers: a new paradigm in chemical library generation." J. Chem. Soc., Perkin Trans. 1, pp. 3815-4195, 2000.
	CI	Jung, Günther, et al., eds., "Peptides 1988, Proceedings of the 20 <sup>th</sup> European Peptide Symposium." Walter de Gruyter, pp. 199-201, 1989.
	CJ	Nonogaki, Saburo, et al., "polyvalent anion-exchange resins composed of cross-linked polyethylenimine complexes of heavy metals." J. Phys. Chem., vol. 62, pp. 601-603, 1958.
	CK	Bartulin, J., et al., "Synthesis of Basic Resins for Uranium and Copper Recovery. (Part IV)." Polymer Bulletin, vol. 12, pp. 393-397, 1984.
	CL	Rivas, B.L., et al., "Polyethyleneimine supports for resins with retention properties for heavy metals. Part 3." Polymer Bulletin, vol. 16, pp. 299-303, 1986.
	CM	Rivas, B.L., et al., "Crosslinking effect on sorption and thermal stability by crosslinked poly(ethyleneimine)." Polymer Bulletin, vol. 28, pp. 601-606, 1992.
	CN	Rademann, Jörg, et al., "Kombinatorische Chemie." Nachrichten aus der Chemie, vol. 48, pp. 280-283, 2000. (In German.)

Examiner

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609.  
 Draw line through citation if not in conformance and not considered.  
 Include copy of this form with next communication to Applicant.

FORM PTO-1449

## INFORMATION DISCLOSURE CITATION

Atty Docket  
26709Serial No.  
10/532,214Applicant  
RADEMANNFiling Date  
April 22, 2005Group Art Unit  
Unknown

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub-Class	Translation
	BA						
	BB						

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	BC	Kirschning, Andreas, et al., "Functionalized Polymers - Emerging Versatile Tools for Solution-Phase Chemistry and Automated Parallel Synthesis." Angew. Chem. Int. Ed., vol. 40, pp. 650-679, 2001.
	BD	Rademann, Jörg, et al., "Alkylating polymers: Resin-Released Carbenium Ions as Versatile Reactive Intermediates in Polymer-Assisted Solution-Phase Synthesis." Angew. Chem. Int. Ed., vol. 40, pp. 381-385, 2001.
	BE	Weik, Steffen, et al., "Oxoammonium Resins as Metal free, Highly Reactive, Versatile polymeric Oxidation Reagents." Angew. Chem. Int. Ed., vol. 40, pp. 1436-1439, 2001.
	BF	Sorg, Gerhard, et al., "Oxidizing Polymers: A Polymer-Supported Recyclable Hypervalent Iodine(v) Reagent for the Efficient Conversion of Alcohols, Carbonyl Compounds, and Unsaturated Carbamates in Solution." Angew. Chem. Int. Ed., vol. 40, pp. 4395-4397, 2001.
	BG	Sherrington, David C., "Preparation, structure and morphology of polymer supports." Chem. Commun., pp. 2275-2286, 1998.
	BH	Meldal, Morten, et al., "PEGA: A flow stable polyethylene glycol dimethyl acrylamide copolymer for solid phase synthesis." Tetrahedron Lett., vol. 33, pp. 3077-3080, 1992.
	BI	Rademann, Jörg, et al., "Solid-Phase Synthesis of Peptide Isoters by Nucleophilic Reactions with N-Terminal Peptide Aldehydes on a Polar Support Tailored for Solid-Phase Organic Chemistry." Chem Eur. J., vol. 5, pp. 1218-1225, 1999.
	BJ	Rademann, Jörg, et al., "SPOCC: A Resin for Solid-Phase Organic Chemistry and Enzymatic Reactions on Solid Phase." J. Am. Chem. Soc., vol. 121, pp. 5459-5466, 1999.
	BK	Groth, Thomas, et al., "HYDRA: A novel hydroxyl and amine functionalised resin synthesised by reductive amination of PEG aldehyde and a polyamine." J. Chem. Soc., Perkin Trans. I, pp. 4258-4264, 2000.
	BL	Trost, Barry M., "Atom Economy - A Challenge for Organic Synthesis: Homogenous Catalysis Leads the Way." Angew. Chem. Int. Ed. Engl., vol. 34, pp. 259-281, 1995.
	BM	Swali, Vinay, et al., "Solid-Phase Dendrimer Synthesis and the Generation of Super-High-Loading Resin Beads for Combinatorial Chemistry." J. Org. Chem., vol. 62, pp. 4902-4903, 1997.

Examiner

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609.

Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to Applicant.